

WHAT IS CLAIMED IS:

1. A drive system for an automatic stainer (10), the drive system comprising:
 - a motor (16);
 - 5 a side wall (40) for carrying specimens to be stained;
 - a first crank system (12) and a second crank system (14) each coupled to the side wall (40) and connected to the motor (16);
 - wherein the motor (16) drives both the first and second crank systems (12, 14).
- 10 2. The drive system as defined in Claim 1, wherein the first and second crank systems (12, 14) are each connected to the motor (16) by respective power transfer means for providing synchronized operation of the first and second crank systems (12, 14).
- 15 3. The drive system as defined in Claim 2, wherein the power transfer means includes a toothed belt.
4. The drive system as defined in Claim 2, wherein each of the first and second crank systems (12, 14) includes a rotatably mounted shaft (20) and a pair of levers (19) arranged one at each end of the shaft (20).
- 20 5. The drive system as defined in Claim 4, further comprising a plurality of rollers (17) rotatably mounted one on each of the levers (19).
6. The drive system as defined in Claim 5, wherein the side wall (40) includes a plurality of sloped guide tracks (24) into which the plurality of rollers (17) engage, respectively.

7. The drive system as defined in Claim 6, wherein the plurality of guide tracks (24) are respectively formed as recesses in an associated assembly element (41) mounted on the side wall (40).
- 5 8. The drive system as defined in Claim 7, wherein the side wall (40) includes two panels (44) arranged opposite one another and a transverse connector (46) for joining the two panels (44) to one another.
9. The drive system as defined in Claim 1, further comprising a gate (22) fixed on the automatic stainer (10) and coupled to at least one of the first and second crank systems (12, 14).
- 10 10. The drive system as defined in Claim 9, wherein the gate (22) comprises a gate guide track (48), and the side wall (40) includes a peg (46) arranged to engage the guide track (48).
11. The drive system as defined in Claim 4, further comprising an angle sensor arranged to sense rotation of the shaft (20) of one of the first and second crank systems (12, 14).
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